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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,817	12/02/2003	Patrick Reinhold	22718	4112

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EXAMINER

ROE, JESSEE RANDALL

ART UNIT	PAPER NUMBER
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1742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/726,817

Applicant(s)

REINHOLD ET AL.

Examiner

Jessee Roe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims Status

Claims 9-13 remain for examination wherein claims 9-11 and 13 are amended and claims 1-8 are canceled.

Status of Previous Rejections

The previous rejection of claims 9-13 under 35 U.S.C. 102(b) as being anticipated by Anderson (US 3,716,222) is withdrawn in view of the Applicant's amendments to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harsch (US 1,949,716) in view of the ASM Handbook Volume 1.

In regards to claim 9, Harsch ('716) discloses an apparatus for heat treating metal objects wherein the apparatus would comprise a longitudinally extending furnace (pg. 1, col. 1, lines 1-3 and Figure 8); electric resistor elements for transfer of heat to the metal objects (pg. 1, col. 2, lines 83-89); zones near the outlet that are higher than at the inlet (pg. 1, col. 1, lines 14-19) and a means of transport (rollers, motor or conveyor chain) for conveying the metal objects longitudinally through the furnace (Figure 8 and

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pg. 1, col. 2, lines 65-82). Harsch ('716) discloses that the path of the movement through the furnace is to obtain uniformity for any given section across the load (pg. 1, col. 1, lines 6-10). Harsch ('716) further specifies forming a partition in the form of baffles thereby dividing the heat treatment zones of the object (pg. 1, col. 1, lines 14-19), individually controlling the zone temperatures (pg. 3, col. 93-107), and employing fans that would be individually driven in each zone (temperature nonuniformity) so that any desired temperature gradient throughout the metal objects can be obtained (pg. 1, col. 2, lines 97-104 and pg. 2, col. 2, lines 77-88).

Harsch ('716) discloses an apparatus for heat treating metal objects as shown above, but Harsch ('716) do not specify wherein the metal objects would include steel.

The ASM Handbook Volume 1 discloses that steel is one of the most widely used category metallic material because it can be manufactured relatively inexpensively in large quantities to very precise specifications (pg. 140).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the apparatus for heat treating metal objects, as disclosed by Harsch ('716), to heat treat one of the most widely used category metallic material (i.e. steel), as disclosed by the ASM Handbook Volume 1, because steel can be manufactured relatively inexpensively in large quantities to very precise specifications, as disclosed by the ASM Handbook Volume 1 (pg. 140).

In regards to claims 10 and 12-13, Harsch ('716) discloses a plate or trough that supports the upper lift of the conveyor chain (serving as an upper or middle partition depending upon the presence of baffles and/or a tray that extends the length of the

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furnace) and a plate that supports the lower lift (lower partition) that defines an open gap (pg. 1, col. 2, lines 78-82, pg. 2, col. 2, lines 121-137 and Figure 9). In addition, the adjustable baffles would be included in each zone (above the conveyor) dividing the heat treatment zone of the object (pg. 1, col. 1, lines 14-19) and the plate would inherently be movable depending upon the presence.

In regards to claim 11, Harsch ('716) discloses that the baffles would be removable and would be adjusted to treat any given section across the object (pg. 1, col. 1, lines 1-26).

Response to Arguments

Applicant's arguments with respect to claims 9-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory

action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR

ROY KING
SUPERVISORY PATENT EXAMINER
TECHNICAL CENTER 1700